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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,172	11/06/2003	Saharut Sirichai	0173279	4007

7590 07/26/2004  
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EXAMINER
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TA, THO DAC

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/705,172	SIRICHA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tho D. Ta	2833	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Wijma et al. (US 2002/0009920).

In regard to claim 1, Wijma et al. discloses an electrical connector comprising: a housing 13 having a surface; and a light source 11 inside the housing 13, wherein: a first portion 18 of the surface permits the passage of a first amount of light from the light source 11; a second portion 17 of the surface permits the passage of a second amount of light from the light source 11; and the second amount of light is different from the first amount of light (page 2, paragraph 0017).

In regard to claim 2, Wijma et al. discloses that the first amount of light is greater than the second amount of light.

In regard to claim 3, Wijma et al. discloses that the first portion 18 is textured (translucent material); and the second portion is non-textured (transparent material).

In regard to claim 4, Wijma et al. discloses that the first portion 18 is translucent; and the second portion is transparent 17.

In regard to claim 5, Wijma et al. discloses that the first portion 18 is constructed of a first material (translucent); the second portion 17 is constructed of a second material (transparent); and the second material is different from the first material.

In regard to claim 6, Wijma et al. discloses that the first portion 18 is constructed of a first material; and the second portion is constructed of the first material (see fig. 1, page 1, paragraph 0015).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wijma et al.

In regard to claim 8, Wijma et al. discloses a connector tip 14 partially enclosed within the housing 13.

However, Wijma et al. does not show a plurality of wires inside the housing 13; and wherein the connector tip is selected from the group consisting of a universal serial bus connector tip and a firewire connector tip.

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Official Notice is taken that both the concept and the advantages of providing a plurality of wires for this particular connector of Wijma et al are well known and expected in the art.

No significant patentable weight is given to the recitation "the connector tip is selected from the group consisting of a universal serial bus connector tip and a firewire connector tip" because it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

In regard to claim 9, Wijma et al. is silent about the type of light source 11.

Official Notice is taken that both the concept and the advantages of providing a light emitting diode for this particular connector of Wijma et al are well known and expected in the art.

5. Claims 1, 7, 10-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (US 2004/0042735 A1) in view of Yu et al (6,089,893).

In regard to claim 1, Ma discloses an electrical connector comprising: a transparent housing 122 (page 1, paragraph 0005) having a surface; and a light source 1211 inside the transparent housing 122.

However, Ma does not disclose that a first portion of the surface permits the passage of a first amount of light from the light source 1211; a second portion of the

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surface permits the passage of a second amount of light from the light source 1211; and the second amount of light is different from the first amount of light. Thus, the connector of Ma provides light at a uniform intensity at all the regions of the connector housing 122 resulting in poor illumination of adjacent structures of the connector housing 122.

Yu et al. teaches that the face plate 12 can be molded from different materials which permit various levels of light to pass through. A first portion 80 of the surface permits the passage of a first amount of light from the light source 38; a second portion 82, 84 of the surface permits the passage of a second amount of light from the light source 38; and the second amount of light is different from the first amount of light (see column 3, lines 6-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ma's invention by constructing the housing 122 with different materials as taught by Yu et al. in order to provide a good illuminated electrical connector.

In regard to claim 7, Ma discloses that the surface of housing 122 comprises: a first side; a second side substantially opposite the first side; a third side extending between the first side and the second side; and a fourth side substantially opposite the third side and extending between the first side and the second side; the first side and the second side form the first portion; and the third side and the fourth side form the second portion.

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In regard to claims 10-13, 17, Ma discloses an electrical connector comprising: a housing 122 is formed of a uniform material, the housing 122 having a surface comprising: a first side; a second side substantially opposite the first side; a third side extending between the first side and the second side; and a fourth side substantially opposite the third side and extending between the first side and the second side; the first side is substantially parallel to the second side; and the third side is substantially parallel to the fourth side; and a light source 1211 inside the housing 122, wherein: at least portions of the first side and the second side form a first portion of the surface; at least portions of the third side and the fourth side form a second portion of the surface.

However, Ma does not disclose that more light passes through the first portion than passes through the second portion. Thus, the connector of Ma provides light at a uniform intensity at all the regions of the connector housing 122 resulting in poor illumination of adjacent structures of the connector housing 122.

Yu et al. teaches that the face plate 12 can be molded from different materials which permit various levels of light to pass through. A first portion 80 (is textured and is formed of a translucent material) of the surface permits the passage of a first amount of light from the light source 38; a second portion 82, 84 (is polished and is formed of a transparent material) of the surface permits the passage of a second amount of light from the light source 38; and more light passes through the first portion than passes through the second portion (see column 3, lines 6-23 for different materials).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ma's invention by constructing the housing 122

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with different materials as taught by Yu et al. in order to provide a good illuminated electrical connector.

In regard to claim 14, Ma is silent about the type of transparent material of housing 122. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Ma's invention by constructing the connector housing of a polyvinyl chloride material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

In regard to claim 15, Ma discloses a plurality of wires 111, 112 inside the housing 122; and a connector tip (part of USB connector) partially enclosed within the housing 112, wherein: the connector tip is a universal serial bus connector tip.

In regard to claim 16, Ma discloses that the light source 1211 is a light emitting diode.

In regard to claims 18, 19, Ma discloses an electrical connector comprising: a transparent housing 122 having a surface comprising: a first side; a second side substantially opposite and substantially parallel to the first side; a third side extending between the first side and the second side; and a fourth side substantially opposite and



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substantially parallel to the third side and extending between the first side and the second side; and a light emitting diode 1211 inside the housing 122, wherein: at least a portion of the first side and at least a portion of the second side form a first portion of the surface; at least a portion of the third side and at least a portion of the fourth side form a second portion of the surface.

However, Ma does not disclose that the first portion is textured and more light passes through the first portion than passes through the second portion. Thus, the connector of Ma provides light at a uniform intensity at all the regions of the connector housing 122 resulting in poor illumination of adjacent structures of the connector housing 122.

Yu et al. teaches that the face plate 12 can be molded from different materials which permit various levels of light to pass through. A first portion 80 (is textured and is formed of a translucent material) of the surface permits the passage of a first amount of light from the light source 38; a second portion 82, 84 (is polished and is formed of a transparent material) of the surface permits the passage of a second amount of light from the light source 38; and more light passes through the first portion than passes through the second portion (see column 3, lines 6-23 for different materials).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ma's invention by constructing the housing 122 with different materials as taught by Yu et al. in order to provide a good illuminated electrical connector.

In regard to claim 20, Ma is silent about the type of transparent material of housing 122. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Ma's invention by constructing the connector housing of a polyvinyl chloride material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

In regard to claim 21, Ma discloses a plurality of wires 111, 112 inside the housing 122; and a connector tip (part of USB connector) partially enclosed within the housing 112, wherein: the connector tip is a universal serial bus connector tip.

In regard to claims 22, 23, Ma discloses a method of manufacturing an electrical connector, the method comprising: electrically coupling a light source 1211 to a connector tip (USB connector); and providing a housing 122 around the light source 1211, the housing 122 having a surface, wherein: the surface permits the passage of an amount of light from the light source 1211.

However, Ma does not disclose that the surface having two portions; wherein a first portion of the surface permits the passage of a first amount of light from the light source 1211; a second portion of the surface permits the passage of a second amount of light from the light source 1211; and the second amount of light is different from the first amount of light. Thus, the connector of Ma provides light at a uniform intensity at all

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the regions of the connector housing 122 resulting in poor illumination of adjacent structures of the connector housing 122.

Yu et al. teaches that the face plate 12 can be molded from different materials which permit various levels of light to pass through. A first portion 80 (is textured and is formed of a translucent material) of the surface permits the passage of a first amount of light from the light source 38; a second portion 82, 84 (is polished and is formed of a transparent material) of the surface permits the passage of a second amount of light from the light source 38; and more light passes through the first portion than passes through the second portion (see column 3, lines 6-23 for different materials).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ma's invention by constructing the housing 122 with different materials as taught by Yu et al. in order to provide a good illuminated electrical connector.

In regard to claims 24, 25, Ma as modified by Yu et al. is silent about the type of transparent material and the translucent material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Ma's invention by constructing the connector housing of a polyvinyl chloride material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

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In regard to claim 26, Ma discloses a plurality of wires 111, 112 inside the housing 122; and a connector tip (part of USB connector) partially enclosed within the housing 112, wherein: the connector tip is a universal serial bus connector tip.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho D. Ta whose telephone number is (571) 272-2014. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tdt  
07/21/04

  
**THO D. TA**  
**PRIMARY EXAMINER**